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(54) **TRI-SEAT FOR TOILET**

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(52) **U.S. Cl.**
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(58) **Field of Classification Search**
CPC A47K 13/06; A47K 13/005
USPC 4/235, 237, 238, 239
See application file for complete search history.

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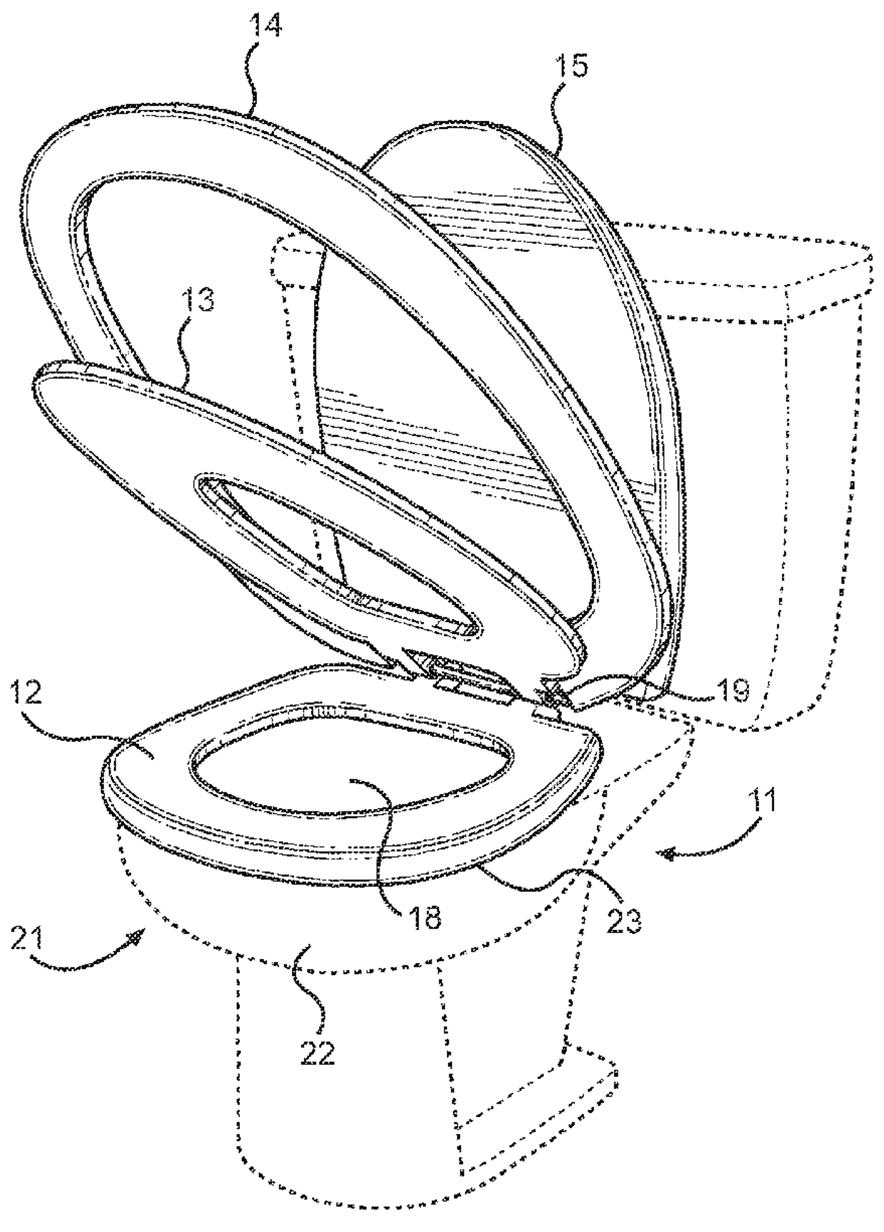
(57) **ABSTRACT**

Disclosed is a toilet seat comprising a primary seat, a first auxiliary seat, and a second auxiliary seat. The primary seat can be used by individuals of average size in a conventional manner, while the first auxiliary seat can be used by smaller individuals. The second auxiliary seat can be used by individuals of larger size. Each seat can be independently raised and lowered as needed. The primary seat attaches below the first and second auxiliary seat, providing a support surface thereto. The device can be installed on a conventional toilet, requires no maintenance, and provides a seat that can accommodate a variety of different sized individuals.

15 Claims, 2 Drawing Sheets



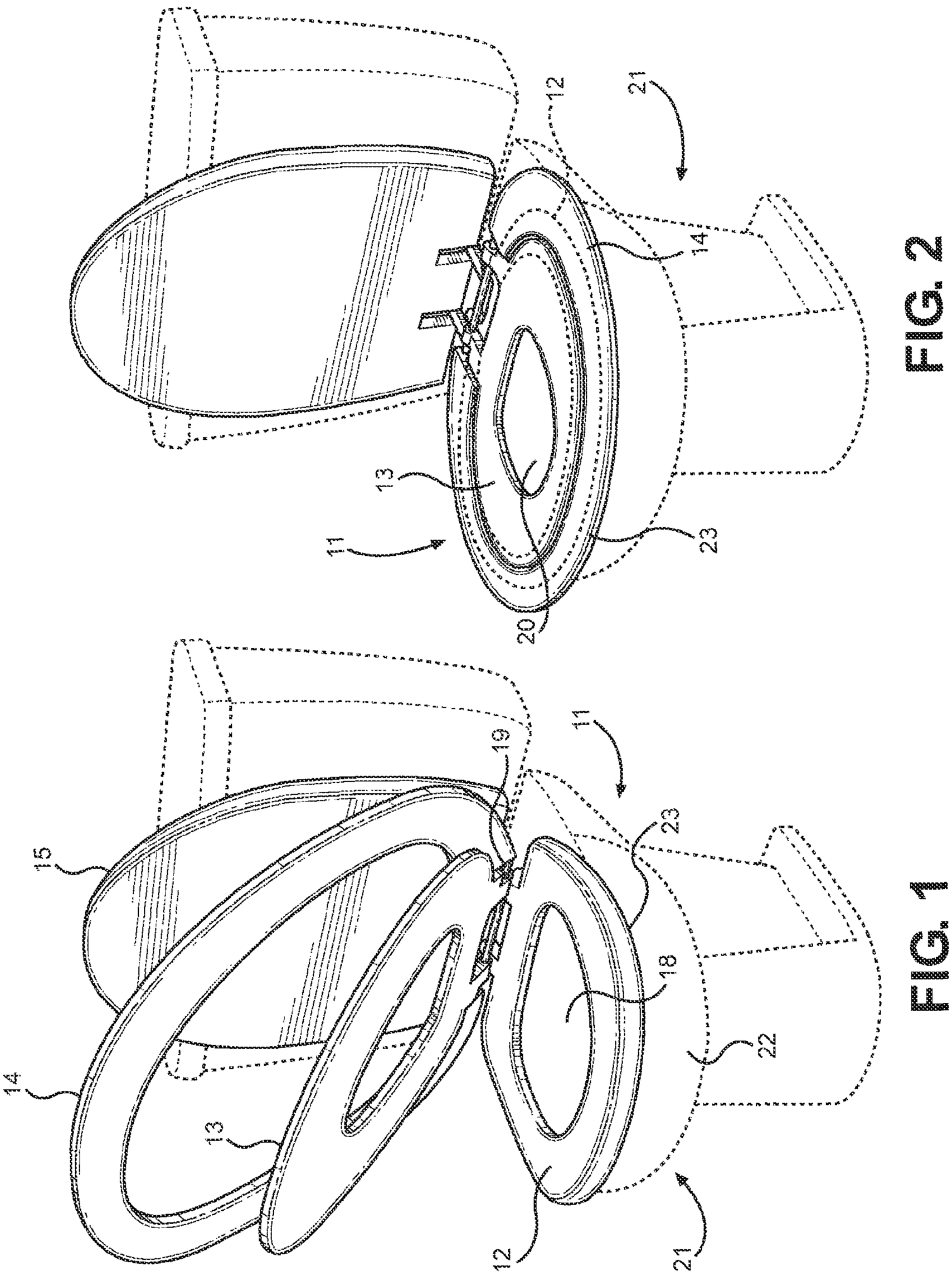


FIG. 2

FIG. 1

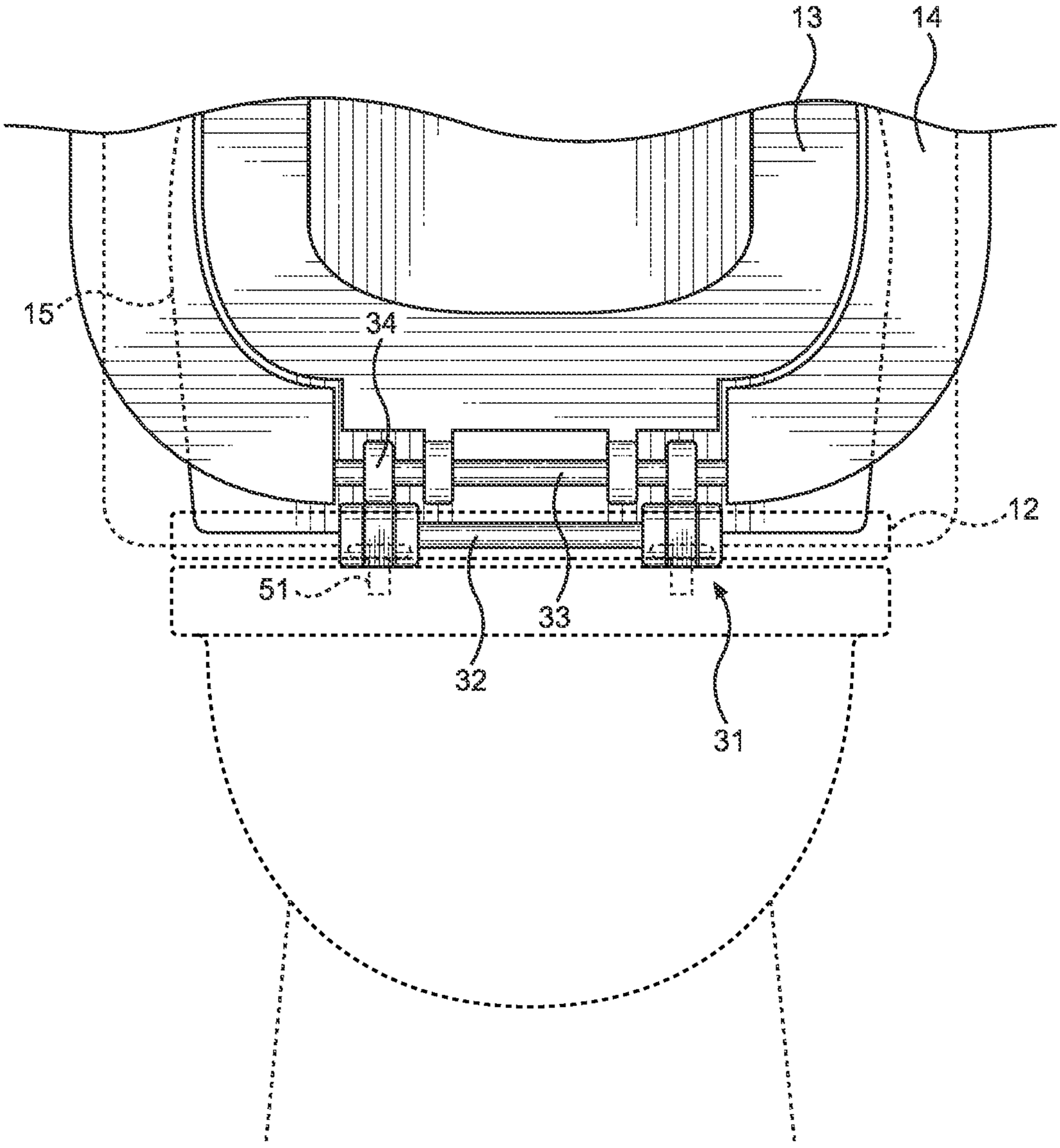


FIG. 3

TRI-SEAT FOR TOILET

CROSS REFERENCE TO RELATED APPLICATION

This application claims the benefit of U.S. Provisional Application No. 61/539,281 filed on Sep. 26, 2011, entitled "TriSeat." The patent application identified above is incorporated here by reference in its entirety to provide continuity of disclosure.

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to hingeable toilet seats. More specifically, the present invention relates to a toilet seat that can be used by individuals of varying size.

A toilet seat is a hinged apparatus that is attached to a toilet bowl, and generally consists of a sitting area and lid. The seat is attached to a conventional toilet with a pair of seat bolts that fit through the opening in the toilet base, and is then threaded into position. The sitting area provides a location for a user to sit while using the toilet. The hinge enables the device to be lifted for male urination or for cleaning.

Conventional toilets and toilet seats are available in two different configurations. Round toilets are completely circular, and are typically found on older style toilets. This design results in a smaller toilet, which is useful for installation in bathrooms with limited space. Elongated toilets and seats, on the other hand, have a longer, oval shape, with a front that is narrower than the rest of the bowl. Elongated bowls have a greater capacity, thereby resulting in less chance of clogs or overflowing. Both round and elongated toilets have the same width, and vary in length by approximately two inches. Regardless of whether the toilet comprises a round or elongated toilet bowl, the seat installed thereon is designed for use by an average adult. While this may be ideal for a majority of users, several groups of people, particularly those who are below or above average size, have difficulty properly fitting on a conventional toilet seat.

Children typically begin potty training between eighteen months and three years of age. At this time they are considerably smaller than the average sized adult, which makes it difficult for children to use a conventional toilet seat. Children must balance with their arms in order to prevent themselves from falling in. In such situations, a child may be concentrating more on balance than on learning to use the toilet. An alternative is to use a child seat that can be secured inside the conventional toilet seat opening. These devices, however, can be easily misplaced, and may be difficult for children to install on their own.

Another group that finds difficulty fitting on a conventionally sized toilet seat is larger adults who may not be able to support the majority of their weight on the seat. This makes balancing while on the seat difficult, and creates a challenge for the user to comfortably use the toilet. User's can install an oversized toilet seat, however, these devices are difficult to use for those of below average size. In such situations, a large adult may have to install the device on one toilet in his or her home, and use that toilet exclusively, while the smaller members of the house are then forced to use a different toilet.

The present invention can enable individuals of all ages and sizes to use the same toilet seat without any discomfort. The device comprises a toilet seat with three different-sized sitting areas. A first seat is sized for smaller individuals, while a second seat is designed to fit a standard sized toilet. On the outside of the standard sized seat is a larger seat that can be used for large adults. The additional seats can be attached with a secondary hinge in the back of the device, while each individual seat can be raised and lowered in a manner similar to a conventional toilet seat. In this way, the device can provide a comfortable and safe sitting environment for users of varying size.

DESCRIPTION OF THE PRIOR ART

Presently, several inventions have been disclosed in the art that provide a toilet seat designed for users of varying size. Some of these devices include a smaller toilet seat with a standard sized toilet seat attached at a hinge, whereby the smaller toilet seat can be raised and lowered independently of the standard seat. A smaller user can put the smaller seat down so that it rests on top of the standard sized toilet seat, which prevents the user from feeling as if he or she is going to fall into the toilet bowl. A standard size user can place the smaller seat in the "up" position, and use the standard seat in a conventional manner. Other devices describe removable seats for small users that can be placed inside the opening of the standard sized seat. The seat can be stored in an area away near the toilet seat, placed in position when needed, and returned to its storage location when not in use. While these seats are useful for those who are below average size, such as children, and for average sized adults, they are not adapted for use by larger individuals.

Several devices have been disclosed in the art that provide a toilet seat with sitting areas for both average sized adults and children. Adams, U.S. Pat. No. 4,461,046 discloses a toilet seat assembly that permits the selective use of an appropriate sized opening for use by an individual, such as an adult or a child. The seating component includes an extended lip portion designed to protrude into the lower opening to prevent lateral movement of the seats when in-use, thereby affording greater stability to the user. This device, however, is adapted for use by smaller users, such as children, as well as average sized adults. The device does not include a large sitting area that extends outside of the standard sized toilet seat.

Similarly, Merry, U.S. Pat. No. 6,449,780 discloses a combined adult and children's toilet seat assembly having a seat mounting structure, a toilet seat lid and an adult toilet seat. The device includes a seat mounting structure, a toilet seat lid, and a children's toilet seat pivotally mounted about a second axis forwardly of the first axis. This allows for movement of the children's toilet seat between a near horizontal position over the adult toilet seat and a near vertical position tilted rearwardly into the seat lid. The children's toilet seat is releasably mounted to the adult toilet seat for pivotal movement by at least one, and preferably two, resiliently expandable gripper structures. Moreover, the adult toilet seat advantageously includes a plurality of upwardly extending, laterally-spaced flanges to which the child's seat is mounted and which also provides a barrier-resisting liquid migration toward the rear of the assembly. While this device provides a seat for both average sized adults and children, it does not include an extended seat for use by a larger adult.

In addition to the '046 and '780 patents, Miller, U.S. Pat. No. 5,448,781 discloses a toilet seat assembly comprising a standard sized toilet seat and a smaller toilet seat for use by a smaller individual, which is supported by the standard sized seat when in a lowered position. The device further includes a cover for the seats, a hinge block and retractable hinge pins for connecting the seats. The hinge allows for independent movement of both seats. This device, however, is only

designed for use by adults of average size, as well as smaller individuals or children. The device does not provide a means of supporting a larger adult.

Thknmes, U.S. Pat. No. 2,692,992 discloses an auxiliary seat for an infant that is connected to a seat and cover of conventional size. The seat is nested within the cover in a manner whereby it does not interfere with the normal function of the cover, and is connected to the cover in a manner so that it can be moved to an operative position for use with the standard toilet seat. This device, however, differs in design from that of the present invention. The '992 patent creates a frame for attachment of a child seat, whereas the present invention discloses multiple seats that can be raised and lowered in a conventional manner.

Other inventions in the prior art disclose toilet seats for children that can be removably attached to a conventional toilet seat. Block, U.S. Pat. No. 4,516,279 discloses a child's toilet trainer seat that is adaptable for use with a conventional toilet seat that lies on top of the conventional toilet seat and which, in a storage position, rests against the lid of the toilet. This device, however, rests on top of a conventional toilet seat, does not attach to the seat, and does not include an oversized seat.

The devices disclosed in the prior art utilize a seat for both average sized adults, as well as smaller children. The primary function of such devices is to allow a child who is otherwise too small to fit on a conventional toilet seat to rest comfortably thereon while using the toilet. The present invention, however, provides a toilet seat that can be used by average sized adults, smaller children, and larger adults who find it difficult to position themselves on a conventional toilet seat. The three seats can be operated independent of each other, thereby enabling a user to quickly select the appropriate sized seat for use.

In light of the prior art and the disclosed elements of the present invention, it is submitted that the present invention substantially diverges in design elements from the prior art. Consequently, it is clear that that present invention is not described by the art and that a need exists for an improved debris receiving receptacle that attaches to the edge of a work surface. In this regard, the instant invention substantially fulfills these needs.

SUMMARY OF THE INVENTION

In view of the foregoing disadvantages inherent in the known types of toilet seats now present in the prior art, the present invention provides a new toilet seat wherein the same can be utilized for providing convenience for the user when being used by individuals of varying size.

It is therefore an object of the present invention to provide a new and improved toilet seat device that has all of the advantages of the prior art and none of the disadvantages.

Another object of the present invention is to provide a toilet seat wherein the sitting area may be varied in size in order to accommodate users of varying size, such as small children, average sized adults, and larger individuals.

Another object of the present invention is to provide a toilet seat that fits on a standard sized toilet bowl.

Yet another object of the present invention is to provide a toilet seat comprising a first seat sized for smaller individuals. The seat is adapted to fit within the opening of a standard sized toilet.

Another object of the present invention is to provide a toilet seat with a larger seat that can be attached to the outside of a conventional toilet seat.

A further object of the present invention is to provide a toilet seat wherein the additional seats can be attached with a secondary hinge in the back of the seat.

Another object of the present invention is to provide a toilet seat wherein each individual seat can be raised and lowered in a manner similar to a conventional toilet seat.

A final object of the present invention is to provide a toilet seat that may be readily fabricated from materials that permit relative economy and are commensurate with durability.

Other objects, features and advantages of the present invention will become apparent from the following detailed description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTIONS OF THE DRAWINGS

Although the characteristic features of this invention will be particularly pointed out in the claims, the invention itself and manner in which it may be made and used may be better understood after a review of the following description, taken in connection with the accompanying drawings wherein like numeral annotations are provided throughout.

FIG. **1** shows a perspective view of the present invention with a first seat in the use position, and the second and third seats in an up position.

FIG. **2** shows a perspective view of the present invention, with the toilet seats in a use position, and the lid in an up position.

FIG. **3** shows a close-up view of the hinge mount.

DETAILED DESCRIPTION OF THE INVENTION

Reference is made herein to the attached drawings. Like reference numerals are used throughout the drawings to depict like or similar elements of the toilet seat. For the purposes of presenting a brief and clear description of the present invention, the preferred embodiment will be discussed as used for attaching to a conventional toilet, and providing a sitting area for average sized adults, small children, and larger adults. The figures are intended for representative purposes only and should not be considered to be limiting in any respect.

Referring now to FIG. **1**, there is shown a perspective view of the present invention, which comprises a toilet seat assembly **11** designed to fit on a conventional toilet **21**. The toilet seat assembly **11** includes a primary seat **12** that is designed to resemble a standard sized toilet seat, which rests on top of a conventional toilet bowl **22**. A first auxiliary seat **13** is sized for smaller individuals, and can be pivotally placed on top of the primary seat **12**. The first auxiliary seat **13** can be used by individuals who have difficulty fitting on a conventional toilet seat due to their smaller size. The device further includes a secondary auxiliary seat **14** that can be placed on the outside of the primary and first auxiliary seats **12**, **13**. The second auxiliary seat **14** is a larger seat that can be used for large adults. The first and second auxiliary seats **13**, **14** can be attached to the primary seat **12** with a hinge **19** in the back of the seat. The hinge **19** permits each seat **12**, **13**, and **14** to be raised and lowered in a manner similar to a conventional toilet seat. The primary seat **12** can be pivotally placed in a down or use position, with the first and second auxiliary seat **13**, **14** in the up position. The first auxiliary seat **13** can be pivotally placed in a use position, wherein the first auxiliary seat **13** rests on top of the primary seat **12**, thereby creating a smaller opening for children. In addition, the second auxiliary seat **14** can be pivotally placed in a use position on top of the primary and first auxiliary seat **12**, **13** for use by larger individuals.

Also attached to the device is a lid **15** that can be pivotally placed in a closed position when the toilet **21** is not in use.

The primary seat **12** of the present invention resembles a conventional toilet seat, and is designed to rest on the rim **23** of a conventional toilet **21**. The primary seat **12** contains a sitting area, which supports the weight of a user when sitting thereon. The seat **12** further includes an aperture **18** in the center thereof that allows access to the interior of the toilet bowl **22**. The primary seat **12** is attached to a hinge mount **31** that permits the primary seat **12** to be raised and lowered. The primary seat **12** can be used independently of the first and second auxiliary seats **13**, **14**, whereby the primary seat **12** is placed in a use position on the rim **23** of the toilet **21**, with the first and second auxiliary seats **13**, **14** in an up position.

The first auxiliary seat **13** is designed to fit over top of the primary seat **12**. The first auxiliary seat **13** includes a sitting area that rests on top of the primary seat **12**. The aperture **18** of the first auxiliary seat **13** is smaller than that of the primary seat **12**. This enables users of smaller size, such as small children, to securely sit thereon. When small children sit on and use a conventional sized toilet seat, their buttocks is smaller than the aperture in the toilet, meaning that the seat provides no support thereto. Children must balance on the seat with their arms supporting their weight, as to not fall into the toilet bowl **22**. This can be too difficult for many children, meaning that an alternate solution must be found. The smaller aperture **20** of the first auxiliary seat **13** enables the seat to support the buttocks of the child, meaning that no support is required by the arms of the user.

Similar to the first auxiliary seat **13**, the second auxiliary seat **14** is designed to fit over top of the primary seat **12**. The second auxiliary seat **13** includes a sitting area that rests on top of the primary seat **12**. The sitting area for the second auxiliary seat **14** extends beyond the primary seat **12**, and provides an enlarged sitting area for users of larger size. This affords additional stability to a larger user, whose buttocks may extend beyond the sitting area of a conventional sized toilet seat.

Referring now to FIG. **2**, there is shown a perspective view of the present invention, with the toilet seats **12**, **13**, and **14** in a use position, and the lid in an up position. The seats **12**, **13**, and **14** of the present invention are capable of being raised and lowered independently, thereby allowing a user to select an appropriately sized seat. The primary seat **12** is designed to resemble a conventional toilet seat that is well known in the art, and securely rests on top of the toilet rim **23**.

The first auxiliary seat **13** comprises a child's seat, with a smaller aperture **20** to prevent the child from falling into the opening in the toilet **21**. The first auxiliary seat **13** fits over top of the primary seat **12** such that the sitting area of primary seat **12** extends beyond the first auxiliary seat **13**, providing support thereto when the first auxiliary seat **13** is in a use position. The smaller size of the aperture **20** in the first auxiliary seat **13** is accomplished by enlarging the sitting area. This provides a safer sitting area for a child, and further prevents the child from wetting the primary seat **12**. If a child inadvertently wets the first auxiliary seat **13**, the extended size of the sitting area will prevent the liquid from making contact with the primary seat **12**, such that the liquid will drop directly down into the toilet **21**.

The second auxiliary seat **14** can also be positioned to rest on top of the primary seat **12**. As previously described, the smaller size of the first auxiliary seat **13** permits the primary seat **12** to extend beyond the first auxiliary seat **13**. This provides a rim for the second auxiliary seat **14** to be supported by. When the first and second auxiliary seats **13**, **14** are in a use position, they are both supported by the primary seat **12**. The first auxiliary seat **13** is supported by the interior portion of the primary seat **12**, while the second auxiliary seat **14** is supported by the outer portion of the primary seat **12**. The design provides a sufficient amount of contact area between the primary seat **12** and second auxiliary seat **14**. This enables the second auxiliary seat **14** to extend beyond the primary seat **12** and the rim **23** of the toilet, thereby providing an enlarged sitting area for a large adult.

The second auxiliary seat **14** can be used with the first primary seat **12** in a use position, or in the up position. When in the use position, the first auxiliary seat **13** nests inside of the second auxiliary seat **14**, which gives a user additional width for sitting. This configuration allows for additional support by distributing the user's weight over a larger sitting area. Alternately, a user can place the first auxiliary seat **13** in the up position, whereby the first auxiliary seat **13** is moved into a vertical position with the lid **15**. In this configuration, the weight of the user is supported entirely by the second auxiliary seat **14**. When the first auxiliary seat **13** is moved into the up position, the aperture **20** is of larger size, which provides greater access to the toilet bowl.

Referring now to FIG. **3**, there is shown a close-up view of the hinge mount **31**. The device includes a mounting means that allows for independent movement of the primary seat **12**, first and second auxiliary seats **13**, **14**, and lid **15**. The hinge mount **31** attaches to the toilet bowl with a conventional bolt fastener **51** that is well understood in the art. The primary seat **12** includes a primary hinge **32** that functions in a manner similar to a conventional toilet seat hinge. This enables the primary seat **12** to be raised and lowered as needed. The lid **15** is also attached to the primary hinge **32**, which allows for raising and lowering thereof.

Attached above the primary hinge **32** is a secondary hinge **33** that allows for movement of the first and second auxiliary seats **13**, **14**. The first auxiliary seat **13** attaches on the inside of the hinge **32**, while the secondary auxiliary seat **14** attaches on the outside of the primary hinge **32**. This allows both seats **13**, **14** to attach to the primary hinge **32** in a manner that permits both seats **13**, **14** to rest flush on the top of the primary seat **12**, thereby creating an enlarged sitting area for a large individual. This design further allows for independent raising and lowering of each seat **13**, **14**. The first auxiliary seat **13** can rotate about the primary hinge **32** independent of the secondary seat **14**. In a similar manner, the second auxiliary seat **14** can rotate independent of the first auxiliary seat **13**.

In operation, the primary, first and second auxiliary seats **12**, **13**, and **14**, and the lid **15** can be placed in a down position. A user may lift the lid **15**, which is attached to the primary hinge **32**, while the primary and first and second auxiliary seats **12**, **13**, and **14** are in the down or use position. The first and second auxiliary seats **13**, **14**, which are attached to the secondary hinge **33**, may be independently raised as required by the user. Once the lid **15** and secondary seats **13**, **14** are raised, the primary seat **12**, which is attached to the primary hinge **32** can be raised and lowered as required.

In the preferred embodiment, the first and second auxiliary seats **13**, **14** attach to the primary hinge **32** with a clip **34**. The clip **34** permits attachment and detachment of the first and second auxiliary seats **13**, **14**, thereby allowing for use of the primary seat **12** only. A user can detach each seat **13**, **14** as required, which is particularly useful after a small child has learned to use a conventional toilet seat. In an alternate embodiment, the seats **13**, **14** can be permanently attached to the secondary hinge **33**.

Overall, the device provides a user with a toilet seat that can be used by individuals of varying size. The primary seat can be used by individuals of average size in a conventional

manner. The first auxiliary seat can be used by children or other small individuals who find it difficult to balance on a standard size toilet. The second auxiliary seat can then be used by individuals of larger size, thereby preventing the user from finding the size of the toilet seat to be too small to properly balance on. Each seat can be independently raised and lowered as needed. The device can be installed on a conventional toilet, requires no maintenance, and provides a seat that can accommodate a wider variety of individuals.

To this point, the instant invention has been shown and described in what is considered to be the most practical and preferred embodiments. It is recognized, however, that departures may be made within the scope of the invention and that obvious modifications will occur to a person skilled in the art. With respect to the above description then, it is to be realized that the optimum dimensional relationships for the parts of the invention, to include variations in size, materials, shape, form, function and manner of operation, assembly and use, are deemed readily apparent and obvious to one skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed by the present invention.

Therefore, the foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention.

We claim:

1. A toilet seat assembly, comprising:

a primary seat comprising a first opening;

a first auxiliary seat comprising a second opening;

a second auxiliary seat comprising a third opening, the third opening being a through-hole;

wherein the second opening is smaller than the first opening and the third opening is larger than wherein the third opening is sized to receive the first auxiliary seat therethrough;

wherein the first auxiliary seat rests against an inner portion of the primary seat when in a lowered position, the second auxiliary seat rests against an outer portion of the primary seat when in a lowered position, and the first auxiliary seat rests embedded and flush with the second auxiliary seat when in the lower positions;

a mount adapted to attach the toilet seat assembly to a toilet;

wherein the primary seat, the first auxiliary seat, and the second auxiliary seat are pivotally attached to the mount.

2. The toilet seat assembly of claim **1**, wherein the primary seat, the first auxiliary seat, and the second auxiliary seat are independently pivotable.

3. The toilet seat assembly of claim **1**, further comprising a lid pivotally attached to the mount.

4. The toilet seat assembly of claim **3**, wherein the primary seat, the first auxiliary seat, the second auxiliary seat, and the lid are independently pivotable.

5. The toilet seat assembly of claim **1**, wherein the first opening, the second opening, and the third opening are concentric.

6. The toilet seat assembly of claim **1**, wherein the primary seat is adapted to rest against a rim of a toilet bowl when in a lowered position.

7. The toilet seat assembly of claim **1**, wherein the first auxiliary seat and the second auxiliary seat are adapted to rest against the primary seat when in a lowered position.

8. The toilet seat assembly of claim **1**, wherein the second auxiliary seat is sized to provide a sitting area extending beyond the primary seat.

9. The toilet seat assembly of claim **1**, wherein the first auxiliary seat is sized to provide a sitting area smaller than the primary seat.

10. The toilet seat assembly of claim **1**, wherein the mount is affixed to the toilet via a fastener.

11. The toilet seat assembly of claim **1**, wherein the first auxiliary seat and the second auxiliary seat are removably attached to a hinge of the mount.

12. The toilet seat assembly of claim **11**, wherein the first auxiliary seat and the second auxiliary seat are attached to the hinge via a clip.

13. The toilet seat assembly of claim **1**, wherein the first auxiliary seat and the second auxiliary seat are integrally attached to a hinge of the mount.

14. The toilet seat assembly of claim **1**, further comprising:

a first hinge to which the primary seat is pivotally connected;

a second hinge to which the first auxiliary seat and the second auxiliary seat are pivotally connected.

15. The toilet seat assembly of claim **1**, further comprising:

a lid;

a first hinge to which the primary seat and the lid are pivotally connected;

a second hinge to which the first auxiliary seat and the second auxiliary seat are pivotally connected.

* * * * *